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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,215	12/21/2000	John William Richardson	PU000157	8037

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EXAMINER	
SEFCHECK, GREGORY B	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/745,215	RICHARDSON ET AL.	
	Examiner	Art Unit	
	Gregory B Sefcheck	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-19 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 April 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

- In regards to Claim 1,

The method does not show how the selection of "certain ones" of the sub-signals is determined for subsequent transmission/reception over a DSL path. It would be beneficial to illustrate how the monitored bandwidth of each DSL path provided by the network control is utilized in this selection.

3. Claimsw 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01.

- In regards to Claim 13,

It is not shown how the network determines "selective ones" of the video layers to be delivered to the CPE. It would be beneficial to illustrate how the DSLAM is controlled to deliver selective ones of the video layers based on the monitored bandwidth available on each DSL path provided by the network control.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US006181711B1), hereafter Zhang, in view of Voit et al. (US006424657B1), hereafter Voit.

- In regards to Claims 1-3, 6, 8-11,

Zhang discloses a method of transmitting video over a network (Title; Abstract; claim 1 – method of delivering video over a network).

Referring to Fig. 4, a video signal 420 is separated into multiple sub-signals (input to 404/406/408; claim 1 – separating compressed video into multiple sub-signals; claim 11 – each of the sub-signals has a bandwidth smaller than the video signal).

Zhang shows that each of the sub-signals is encoded at encoder 410 (claim 1 – coding each sub-signal).

Referring to Fig. 11, Zhang shows that the sub-signals can then be transmitted over paths of an ATM network (claim 1 – transmitting each sub-signal over ATM paths; claim 9 – ATM paths are through an ATM network)

Zhang does not explicitly show receiving each of the sub-signals and selecting certain sub-signals according to a bandwidth suitable for subsequent reception over a DSL path to end-user equipment.

Voit discloses managing video traffic for remote terminal DSLAMs (Title; Col. 2, lines 35-38). Voit discloses receiving video signals at a DSLAM from virtual channels of an ATM switch. The DSLAM 111 is programmed such that the video traffic rate on the is regulated on each virtual circuit corresponding to the grade of service to which the particular customer subscribes (Col. 4-5, lines 53-1; claim 1 – receiving each sub-signal; claim 1 – selecting certain ones of sub-signals according to a bandwidth suitable for subsequent reception over a DSL path; claim 2 – selecting is based on a data rate capacity of the DSL path for subsequent reception of sub-signals; claim 3 – bandwidth of sub-signals is supported by the data rate of the DSL path; claim 6 – transmitting sub-signals from step of selecting over a DSL path to end-user equipment; claim 8 – receiving each sub-signal is done by CPE; claim 10 – separating comprises spanning the sub-signals across multiple ATM virtual circuits).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method of Zhang for transmitting video over ATM paths with the method of receiving video over DSL paths from an ATM network, as taught by Voit. This combination would enable the complete delivery of video from a video source over an ATM core network to subscribers over a DSL local network, thereby expanding the area to which video can be supplied to subscribers.

- In regards to Claims 4 and 5,

Zhang v. Voit discloses a method of delivering video over a network that covers all limitations of the parent claims.

Zhang discloses that the resolution of the video images is determined through separation and modification of the sub-signals (Fig. 5; Col. 12, lines 54-59; claim 4 – number of sub-signals determines a video resolution of an output signal received by a subscriber; claim 5 – separating comprises sub-signals being formed in terms of contributing to a desired resolution quality of the video signal).

- In regards to Claim 7,

Zhang v. Voit discloses a method of delivering video over a network that covers all limitations of the parent claims.

Zhang discloses that such compressed video bit streams as shown in Figs. 4 and 5 are generated by video server storage systems (Col. 3-4, lines 65-1; claim 7 – separating is done by a video server).

- In regards to Claim 12,

Zhang v. Voit discloses a method of delivering video over a network that covers all limitations of the parent claims.

Referring to Fig. 10, Zhang discloses adding a cyclical redundancy check and forward error control coding to the output of the video signals for use when decoding to ensure proper reception of the video signals (Col. 17, lines 7-38; claim 12 – after coding, adding redundancy or error control coding on each sub-signal; claim 12 – after receiving, decoding sub-signals using redundancy or error control coding).

Allowable Subject Matter

6. Claims 13-19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- McLean (US 20040028317A1) discloses a network design allowing for the delivery of high capacity data in numerous simultaneous streams, such as video streams
- Lewin et al. (US006680940B1) discloses a system for transporting Ethernet frames over very high speed digital subscriber lines
- Zhang et al. (US006483543B1) discloses a system and method for transcoding multiple channels of compressed video streams using a self-contained data unit
- Cohen et al. (US006477595B1) discloses a scalable DSL access multiplexer with high reliability
- Gordon et al. (US006253375B1) discloses a system for interactively distributing information services
- Brown (US005822530A) discloses a method and apparatus for processing requests for video on demand versions of interactive applications
- Coddington et al. (US005410343A) discloses video-on-demand services using public switched telephone network

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B Sefcheck whose telephone number is 703-305-0633. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
4-16-2004

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